

Please cancel claims 8, 9 and 11.

**REMARKS**

***I. STATUS OF THE CLAIMS***

Claims 1-7, 10 and 15 are pending in this application. Claim 15 has been added. Claim 1 has been amended. No new matter has been introduced by the addition of claim 15 and the amendment of claim 1. Claim 15 finds support on page 21, lines 26-36. Claim 1, as amended, incorporates the limitations of claims 8 and 9. Claims 8, 9 and 11 have been canceled. A version showing the changes made to claim 1 is attached herein as **"Version With Markings To Show Changes Made."**

***II. THE REJECTION UNDER 35 U.S.C. § 102(b)***

Claims 1-7 and 9-11 are rejected under 35 U.S.C. § 102(b) as anticipated by U.S. Patent No. 4,613,544 to *Burleigh* ("*Burleigh*").

Claims 1-10 are rejected under 35 U.S.C. § 102(b) as anticipated by U.S. Patent No. 4,450,198 to *Michaels* ("*Michaels*").

Claims 1-4, 6-8 and 11 are rejected under 35 U.S.C. § 102(b) as anticipated by JP 09100363 ("*JP '363*").

In rejecting claims 1-7 and 9-11 under *Burleigh*, the Examiner states that *Burleigh* discloses a microporous polymeric matrix having pores comprising continuous passages extending through its thickness and opening into the opposite surfaces thereof. It is the Examiner's position that the microporous polymeric matrix of *Burleigh* is identical to or only slightly different than the claimed porous insulating film prepared by the method of the Applicants' claims. The Examiner alleges that both films are comprised of highly heat resistant resins having mean pore sizes and porosity with the same ranges, and having continuous pores reaching both surfaces.

With regard to claim 10, the Examiner acknowledges that *Burleigh* does not specifically

disclose the specific values given for air resistance and heat shrinkage, but contends that because other physical properties are substantially identical, the microporous polymeric matrix of *Burleigh* inherently possesses air resistance and heat shrinkage values within the Applicants' presently claimed values.

Applicants respectfully disagree. The polymers described by *Burleigh* are prepared from "any polymeric material which is substantially impenetrable by water..." (col. 4, ll. 17-18). Polyimide resins are not listed in *Burleigh* as meeting this requirement (col. 4, ll. 21-26). Claim 1 as amended describes a porous insulating film consisting essentially of a polyimide resin. Thus, *Burleigh* fails to disclose polyimide resins as recited in amended claim 1. Since *Burleigh* fails to disclose each and every feature of claim 1, *Burleigh* fails to anticipate or render obvious claim 1. Further, since claims 2-7 and 9-11 depend from and respectively incorporate all the features of claim 1, claims 2-7 and 9-11 are also not anticipated by *Burleigh*. Applicants respectfully request that the rejection of claims 1-7 and 9-11 under 35 U.S.C. § 102(b) as anticipated by *Burleigh* be withdrawn.

In rejecting claims 1-10 under *Michaels*, the Examiner states that *Michaels* discloses a housing made from a microporous polymeric material such as polyimide and argues that the physical characteristics of the polymeric material, such as pore size, porosity, thickness, heat resistance and dielectric constant, all fall within the values reported by the Applicants for the claimed insulating film.

With regard to claim 6, it is the Examiner's position that the microporous housing of *Michaels* is identical to or only slightly different than the claimed insulating film prepared by the method of the claim. Thus, the Examiner concludes that if the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process.

With regard to claim 10, the Examiner employs the inherency argument discussed above for *Burleigh*.

Applicants respectfully disagree. The microporous polymeric material described by

*Michaels* is used in combination with a swellable, hydrophilic polymer selected from the group consisting of polyhydroxylalkyl acrylate, polyhydroxyalkyl methacrylate, polyacrylamide, poly(methacrylamide), polyvinyl pyrrolidone, polyvinyl alcohol, polyvinyl lactam acrylate and polyvinyl piperidone (col. 7, ll. 4-8). Claim 1 as amended describes a porous insulating film consisting essentially of a polyimide resin. The transitional phrase "consisting of" limits the scope of claim 1 to a polyimide resin and other components "that do not materially affect the basic and novel characteristic(s) of the claimed invention." *In re Herz*, 537 F.2d 549, 551-52, 190 USPQ 461, 463 (CCPA 1976). Combining the high heat resistant polyimide resin of the claimed invention with the aforementioned swellable, hydrophilic (*i.e.*, low heat resistant) polymers of *Michaels* would "materially affect the basic and novel characteristics of the claimed invention." Thus, *Michaels* fails to disclose the limitation of a polyimide resin without a swellable, hydrophilic polymer as recited in claim 1. Since *Michaels* fails to disclose each and every feature of claim 1, *Michaels* fails to anticipate or render obvious claim 1. Further, since claims 2-10 depend from and respectively incorporate all the features of claim 1, claims 2-10 are also not anticipated by *Michaels*. Applicants respectfully request that the rejection of claims 1-10 under 35 U.S.C. § 102(b) as anticipated by *Michaels* be withdrawn.

In rejecting claims 1-4, 6-8 and 11 under *JP* '363, the Examiner states that *JP* '363 is directed to an insulating plastic film that may be comprised of polyimide resin and has pore size, porosity, thickness and dielectric constant values that fall within the values reported by the Applicants for the claimed insulating film.

With regard to claim 2, it is the Examiner's position that while the insulating film of *JP* '363 does not specifically disclose the claimed mean pore size of 0.05 to 1  $\mu\text{m}$ , it would have been obvious to one of ordinary skill in the art to minimize the mean pore size in order to optimize the insulative properties of the film.

With regard to claim 6, the Examiner contends that the insulation film of *JP* '363 is identical to or only slightly different than the Applicants' insulating film prepared by the method of the claim and uses the product-by-process argument discussed above.

Applicants respectfully disagree. *JP '363* describes a porous plastic film but does not disclose a porous film having fine continuous pores reaching to both surfaces. Claim 1 as amended describes a porous insulating film having fine continuous pores that reach to both surfaces of the film. Since *JP '363* fails to disclose each and every feature of claim 1, *JP '363* fails to anticipate or render obvious claim 1. Further, since claims 2-4, 6-8 and 11 depend from and respectively incorporate all the features of claim 1, claims 2-4, 6-8 and 11 are also not anticipated by *JP '363*. Applicants respectfully request that the rejection of claims 1-4, 6-8 and 11 under 35 U.S.C. § 102(b) as anticipated by *JP '363* be withdrawn.

### **III. THE REJECTION UNDER 35 U.S.C. § 103(a)**

Claims 1-7 and 9-11 are rejected under 35 U.S.C. § 103(a) as obvious over *Burleigh* using the arguments discussed above for a 35 U.S.C. § 102(b) rejection.

Claims 1-10 are rejected under 35 U.S.C. § 103(a) as obvious over *Michaels*. using the arguments discussed above for a 35 U.S.C. § 102(b) rejection.

Claims 1-4, 6-8 and 11 are rejected under 35 U.S.C. § 103(a) as obvious over *JP '363* using the arguments discussed above for a 35 U.S.C. § 102(b) rejection.

Applicants respectfully traverse the Examiner's rejections under 35 U.S.C. § 103(a) because the rejections fail to set forth a *prima facie* case of obviousness.

The Examiner bears the initial burden of establishing a *prima facie* case of obviousness. M.P.E.P. § 2142. To establish a *prima facie* case of obviousness, the Examiner must satisfy three requirements. M.P.E.P. §§ 2142, 2143. First, "the prior art reference, or references when combined, must teach or suggest *all* the claim limitations." *Id.* at §§ 2142, 2143.03 (emphasis added). Second, the Examiner must show that there is "some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings." *Id.* at §§ 2142, 2143.01. In other words, the suggestion or motivation must be found in the prior art. *Id.* Finally, "there must

be a reasonable expectation of success.” *Id.* at §§ 2142, 2143.02. In other words, there must be some degree of predictability that the modification would be successful. *Id.*

As discussed above in addressing the Examiner’s 35 U.S.C. § 102(b) rejection, *Burleigh* does not disclose polyimide resins as recited by amended claim 1. In fact, *Burleigh* teaches toward the use of polyolefins such as polyethylene in a polymeric matrix (col. 4, ll. 29-32). As such, nothing in *Burleigh* would motivate one of ordinary skill to choose a polyimide resin for use in an highly heat resistant resin film as recited in claim 1. Thus, *Burleigh* fails to establish a *prima facie* case of obviousness as to claim 1. Further, since claims 2-7 and 9-11 depend from and respectively incorporate all the features of claim 1, claims 2-7 and 9-11 are also not obvious over *Burleigh* at least for the above reasons for which claim 1 is not obvious. Therefore, Applicants respectfully request that the rejection of claims 1-7 and 9-11 under 35 U.S.C. § 103(a) in view of *Burleigh* be withdrawn.

As discussed above in addressing the Examiner’s 35 U.S.C. § 102(b) rejection, *Michaels* describes a microporous polymeric material that is used in combination with a swellable, hydrophilic polymer. *Michaels* teaches that the presence of these low heat resistant, hydrophilic polymers is necessary to regulate the passage of fluids across the film (col. 2, ll. 52-67). As such, *Michaels* teaches a microporous film with overall low heat resistance. Nothing in *Michaels* would motivate one of ordinary skill to choose to employ a microporous polymeric material in the absence of a swellable, hydrophilic polymer. Thus, *Michaels* neither teaches nor suggests the use of a highly heat resistant polyimide resin as an insulating film as recited in amended claim 1. Therefore, *Michaels* fails to establish a *prima facie* case of obviousness as to claims 1-10. Applicants respectfully request that the rejection of claims 1-10 under 35 U.S.C. § 103(a) over *Michaels* be withdrawn.

As discussed above in addressing the Examiner’s 35 U.S.C. § 103(a) rejection, *JP ‘363* describes a porous plastic film but does not disclose a porous film having fine continuous pores reaching to both surfaces as recited in claim 1. As defined in the present application, fine continuous pores are pores which preferably run in a non-linear fashion from one side of the film

to the other side on a nonlinear path (page 1, ll. 15-20). *JP '363* neither teaches nor suggests a film containing fine continuous pores and would not motivate one of ordinary skill to choose such a pore configuration. Thus, *JP '363* fails to establish a *prima facie* case of obviousness as to claims 1-4, 6-8 and 11. Applicants respectfully request that the rejection of claims 1-4, 6-8 and 11 under 35 U.S.C. § 103(a) in view of *JP '363* be withdrawn.

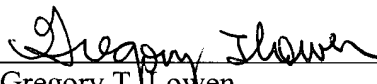
#### ***IV. CONCLUSION***

Applicants respectfully request reconsideration of the subject application in view of the above remarks. The subject application is now in condition for allowance and early notice to that effect is respectfully solicited.

**EXCEPT** for issue fees payable under 37 C.F.R. § 1.18, the Commissioner is hereby authorized by this paper to charge any additional fees during the entire pendency of this application including fees due under 37 C.F.R. §§ 1.16 and 1.17 which may be required, including any required extension of time fees, or credit any overpayment to Deposit Account 50-0310. This paragraph is intended to be a **CONSTRUCTIVE PETITION FOR EXTENSION OF TIME** in accordance with 37 C.F.R. § 1.136(a)(3).

Respectfully Submitted,

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**Version With Markings To Show Changes Made**

**IN THE CLAIMS:**

1. (Amended) A porous insulating film consisting essentially of [comprising] a highly heat resistant polyimide resin film having a fine porous structure wherein fine continuous pores reach to both surfaces of the film, with a mean pore size of 0.01-5  $\mu\text{m}$  in at least the center of the film, and having a porosity of 15-80 %.